



0000077952

**Transcript Exhibit(s)**

**Docket #(s):** SW-03067A-06-0397

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**Exhibit # :** 51

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Arizona Corporation Commission  
**DOCKETED**  
OCT 17 2007

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SEP 10 2007

MEMORANDUM

LEGAL DIV.  
ARIZ. CORPORATION COMMISSION

TO: Docket Control

FROM: Ernest G. Johnson  
Director  
*for* Utilities Division

Date: September 7, 2007

RE: STAFF REPORT FOR THE APPLICATION OF BEAVER DAM  
COMPANY, INC. FOR A CERTIFICATE OF CONVENIENC  
NECESSITY TO PROVIDE WASTEWATER SERVICES  
DOCKET NO. SW-03067A-06-0397

Attached is the Staff Report for Beaver Dam Water Company, Inc. for a Certificate of Convenience and Necessity to provide wastewater service in Mohave County. Staff recommends approval of the application with conditions.

EGJ:LAJ:tdp

Originator: Linda A. Jaress

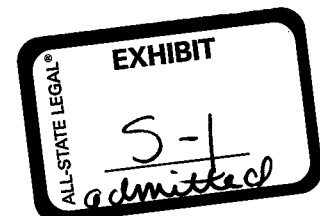
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AZ CORP COMMISSION  
DOCKET CONTROL

*Robin*

**LEGAL**



Service List for: Beaver Dam Water Company, Inc.  
Docket No. SW-03067A-06-0397

Mr. Bob Frisby  
Beaver Dam Water Company  
Post Office Box 307  
Beaver Dam, Arizona 86432

Mr. Christopher C. Kempley  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Ernest G. Johnson  
Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Lyn Farmer  
Chief, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

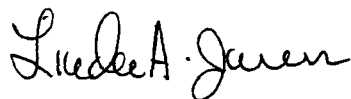
BEAVER DAM WATER COMPANY, INC.  
DOCKET NO. SW-03067A-06-0397

APPLICATION FOR A CERTIFICATE OF  
CONVENIENCE AND NECESSITY TO  
PROVIDE WASTEWATER SERVICE

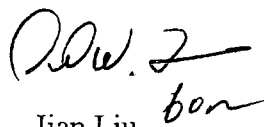
SEPTEMBER 7, 2007

## STAFF ACKNOWLEDGMENT

The Staff Report for Beaver Dam Water Company, Inc., Docket No. SW-03067A-06-0397 was prepared by the Staff members listed below. Linda Jaress reviewed and analyzed the application. Jian Liu performed the engineering and technical analysis. Darak Eaddy performed the financial and rate analysis.



Linda A. Jaress  
Executive Consultant III



Jian Liu  
Utilities Engineer



Darak Eaddy  
Public Utilities Analyst I

**EXECUTIVE SUMMARY**  
**BEAVER DAM WATER COMPANY, INC.**  
**SW-03067A-06-0397**

On June 15, 2006, Beaver Dam Water Company, Inc. ("Beaver Dam" or "the Company") filed an application for an extension of its Certificates of Convenience and Necessity ("CC&N") to provide wastewater services in portions of Mohave County, Arizona. Beaver Dam serves approximately 300 water customers and is located in the far northwest corner of Arizona, less than 10 miles from both the Nevada and Utah borders.

Millennia Investment Corp. is planning to develop a 160-acre parcel known as Shadow Ridge Subdivision which is expected to contain 392 lots at build-out. Phase 1 will be comprised of 67 residential lots. Millennia plans to build the necessary wastewater infrastructure and contribute it to Beaver Dam.

The proposed system will be an AdvanTex Treatment System, a package system using engineered textile for the treatment media. The system includes onsite septic tanks but offsite treatment. Staff concludes that the Company's proposed wastewater systems will have adequate infrastructure to serve the proposed CC&N area and the cost estimates are reasonable.

Staff reviewed the Company's proposed plant in service, revenues, expenses and capital structure and has made several adjustments. The Company proposes to acquire the entire wastewater infrastructure for this CC&N via a line extension with developers. However, Staff recommends that the Company be required to make an equity investment in securing the plant needed to service the CC&N area and utilize a capital structure of 70 percent equity and 30 percent advances-in-aid-of-construction.

Staff determined the projected rate base for the wastewater Plant in Service to be \$521,281 at the end of five years. Staff recommends a rate of return in year 5 of operations of 8.10 percent. The Company is requesting a \$40.00 per month charge for wastewater service while Staff recommends \$45 per month. The difference is caused by Staff's addition of equity to the capital structure.

Beaver Dam has successfully operated a water utility system which is in compliance with both ADEQ and with the Commission. There is a need for wastewater service within a portion of its water utility service area as evidenced by a request for service. Staff believes that Beaver Dam is a fit and proper entity to provide utility wastewater service. Staff recommends approval of the wastewater CC&N.

Staff also recommends that the Company file with Docket Control, in this docket, within two years of the effective date of the decision in this proceeding, a copy of its Acquirer Protection Permit from ADEQ.

Staff also recommends that the Company file within two years of the effective date of the decision in this proceeding, with Docket Control, in this docket, a copy of its franchise from Mohave County.

Staff recommends that the Company maintain books and records separately for water and wastewater.

Staff recommends the Company utilize a capital structure of approximately 70 percent equity and 30 percent advances-in-aid-of-construction as shown on Schedule DRE-WW-6 attached to Exhibit 3.

Staff also recommends approval of Staff's rates as shown on Schedule DRE-WW-5 attached to Exhibit 3.

In addition to charging the approved rates, Staff recommends the Commission allow the Company to collect from its customers a proportionate share of any privilege, sales or use tax.

Staff recommends the Company be required to notify the Commission within 15 days of providing service to its first customer.

Staff recommends the Company be required to file a rate application no later than three months following the fifth anniversary of the date the Company begins providing service to its first customer.

Staff recommends the Company be ordered to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water and Wastewater Utilities.

Staff recommends the Company be ordered to use the depreciation rates recommended by Staff for wastewater utilities.

Staff recommends the Company be ordered to file in its next rate application, a rate design that includes some type of volumetric charges to encourage water conservation.

Finally, Staff recommends that the decision approving this <sup>CAN</sup>(extension) should be deemed null and void after due process if Beaver Dam does not comply with the above requirements in the time ordered.

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## **Introduction**

On June 15, 2006, Beaver Dam Water Company, Inc. ("Beaver Dam" or "the Company") filed an application for an extension of its Certificates of Convenience and Necessity ("CC&N") to provide wastewater services in portions of Mohave County, Arizona. Beaver Dam serves approximately 300 water customers and is located in the far northwest corner of Arizona, less than 10 miles from both the Nevada and Utah borders. The legal description and a map of the location of the requested wastewater area are attached as Exhibit 1.

Beaver Dam filed requests for service from American Land Company and Millennia Investment Corp. ("Millennia") to provide wastewater service to their planned developments. However, due to the very preliminary nature of the development plans for one of the areas, Beaver Dam significantly reduced the area to which it is requesting to provide service to just the Millennia development, the Shadow Ridge subdivision. The request now is for an area encompassing 67 residential units, the first phase of the Shadow Ridge subdivision.

Beaver Dam has applied for a Franchise Agreement with Mohave County but has not yet filed the approved agreement. Beaver Dam is in compliance with previous Arizona Corporation Commission decisions. The Commission's Consumer Services Section has reported that it has searched its records back to January 1, 2003 and there have been no complaints or comments filed regarding the Company.

## **Wastewater System**

Millennia is planning to develop a 160-acre parcel known as Shadow Ridge Subdivision which is expected to contain 392 lots at build-out. Phase 1 will be comprised of 67 residential lots. Millennia plans to build the necessary wastewater infrastructure and contribute it to Beaver Dam.

The proposed system will be an AdvanTex Treatment System, a package system using engineered textile for the treatment media. The system includes onsite septic tanks but offsite treatment. Exhibit 2, Staff's Engineering Report, further describes the system and the costs. The system requires regular monitoring and maintenance and the sludge from the septic tanks should be removed every 3 to 7 years depending on wastewater flows. The Company will remove the sludge and has included in its tariff, an amount to be charged to each customer at the time the sludge is removed.

The estimated cost of plant to serve the subdivision at build-out is \$924,336. Staff concludes that the Company's proposed wastewater systems will have adequate infrastructure to serve the proposed sewer CC&N area and the cost estimates are reasonable.

### **Arizona Department of Environmental Quality Compliance**

The Arizona Department of Environmental Quality ("ADEQ") has determined that Beaver Dam is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. The Company does not have any wastewater plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

The Company received its ADEQ Certificate of Approval to Construct ("ATC") for construction of the proposed Phase I wastewater facilities. The Company has also received approval of its 208 Plan Amendment. However, the Company has not received its Acquirer Protection Permit from ADEQ. Staff recommends that the Company file with Docket Control a copy of its APP within two years of the effective date of the decision in this proceeding.

### **Revenues, Expenses, Rate Base, Capital Structure and Rate of Return**

Staff reviewed the Company's proposed plant in service, revenues, expenses and capital structure and has made several adjustments. Attached as Exhibit 3 is Staff's Financial Regulatory Analysis Report which provides the adjustments in detail.

The Company proposes to acquire the entire wastewater infrastructure for this CC&N via a line extension with developers. However, Staff recommends that the Company be required to make an equity investment in securing the plant needed to service the CC&N area. Staff typically recommends a capital structure of approximately 70% equity to 30% advances/contributions in new CC&N applications. With the Company having exclusive rights to provide service to the area of the CC&N, Staff's adjustment to the Company's proposed plant in service reflects the goal of ensuring a strong economic foundation for the Company and secure wastewater service for customers in the CC&N area. See schedule DRE-WW-6 attached to Exhibit 3.

Staff adjusted revenues, depreciation expense and income tax liability to reflect Staff's changes to the capital structure of the Company. Staff also made adjustments allowing for payback of advances at a rate of 10 percent of the annual revenue generated on the system and for the payback of the Company's Service Line Connection Charge at a rate of 10 percent per annum of the balance collected.

Staff determined the projected rate base for the wastewater Plant in Service to be \$521,281 at the end of five years. Staff recommends a rate of return in year 5 of operations of 8.10 percent.

### **Rates**

All of the Company's projected revenues are derived from the residential customer class. The wastewater rates requested by the Company are a monthly flat fee. Staff concurs with the Company on its proposed monthly flat fee rate design in this initial CC&N application. The

Company is requesting a \$40.00 per month charge for wastewater service while Staff is recommending \$45 per month. The difference is due to Staff's addition of equity to the capital structure.

However, Staff recommends that with the Company's next rate application, it be required to file a rate design that uses some type of volumetric rates in order to encourage water conservation. Staff also concurs with the Company's proposed commercial monthly flat fee rate.

Staff recommends that the Company proposed reestablishment of service (within 12 months) charge be adjusted to months off the system multiplied by the flat monthly fee to reflect Commission rule A.A.C. R14-2-603(D). Staff also recommends a late payment penalty of 1.50% of unpaid monthly balance per month. The other service charges proposed were found reasonable and should be adopted for the Company's initial rates.

The Company has requested a rate in its proposed tariff for the maintenance of the customer's on site septic tanks. The treatment system the Company has chosen requires maintenance of sludge levels in the septic tanks for the overall stability of the wastewater treatment as a whole. The Company proposes to annually check each customer's septic tank and when necessary have the tank pumped. Staff is not in opposition to this inclusion in the Company's tariff as long as it is noted that customers have the right to choose whether to use the Company's service or secure an outside service for the pumping of their septic tanks.

The Company has proposed that the service line connection charge be collected from customers as a contribution in aid of construction. This would in effect be a hookup fee for customers to connect to the system. Staff policy is not to recommend hookup fees for initial CC&N applications. Staff recommends that this charge be collected as an advance in aid of construction and be refunded at 10 percent of the collected balance annually.

### **Conclusions and Recommendations**

Beaver Dam has successfully operated a water utility system which is in compliance with both ADEQ and with the Commission. There is a need for wastewater service within a portion of its water utility service area as evidenced by a request for service. Staff believes that Beaver Dam is a fit and proper entity to provide utility wastewater service. Staff recommends approval of the wastewater CC&N. Staff also recommends that the Company file with Docket Control, in this docket, within two years of the effective date of the decision in this proceeding, a copy of its Acquirer Protection Permit from ADEQ.

Staff also recommends that the Company file within two years of the effective date of the decision in this proceeding, with Docket Control, in this docket, a copy of its franchise from Mohave County.

Staff recommends that the Company maintain books and records separately for water and wastewater.

Staff recommends the Company utilize a capital structure of approximately 70 percent equity and 30 percent advances-in-aid-of-construction as shown on Schedule DRE-WW-6 attached to Exhibit 3.

Staff also recommends approval of Staff's rates as shown on Schedule DRE-WW-5 attached to Exhibit 3.

In addition to charging the approved rates, Staff recommends the Commission allow the Company to collect from its customers a proportionate share of any privilege, sales or use tax.

Staff recommends the Company be required to notify the Commission within 15 days of providing service to its first customer.

Staff recommends the Company be required to file a rate application no later than three months following the fifth anniversary of the date the Company begins providing service to its first customer.

Staff recommends the Company be ordered to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water and Wastewater Utilities.

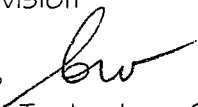
Staff recommends the Company be ordered to use the depreciation rates recommended by Staff for wastewater utilities.


Staff recommends the Company be ordered to file in its next rate application, a rate design that includes some type of volumetric charges to encourage water conservation.

Finally, Staff recommends that the decision approving this extension should be deemed null and void after due process if Beaver Dam does not comply with the above requirements in the time ordered.

**MEMORANDUM**

TO: Linda Jaress  
Executive Consultant III  
Utilities Division

FROM: Barb Wells   
Information Technology Specialist  
Utilities Division

THRU: Del Smith   
Engineering Supervisor  
Utilities Division

DATE: August 6, 2007

RE: **BEAVER DAM WATER COMPANY (DOCKET NO. W-03067A-06-0397)**  
**THIRD AMENDED LEGAL DESCRIPTION**

It has come to my attention that the map I included with my memo for the second amended legal description on July 27, 2007, is incorrect. Attached is the correct map. Also attached is the correct legal description (to eliminate confusion) which should be used in place of the original description submitted with the application as well as all subsequent amendments.

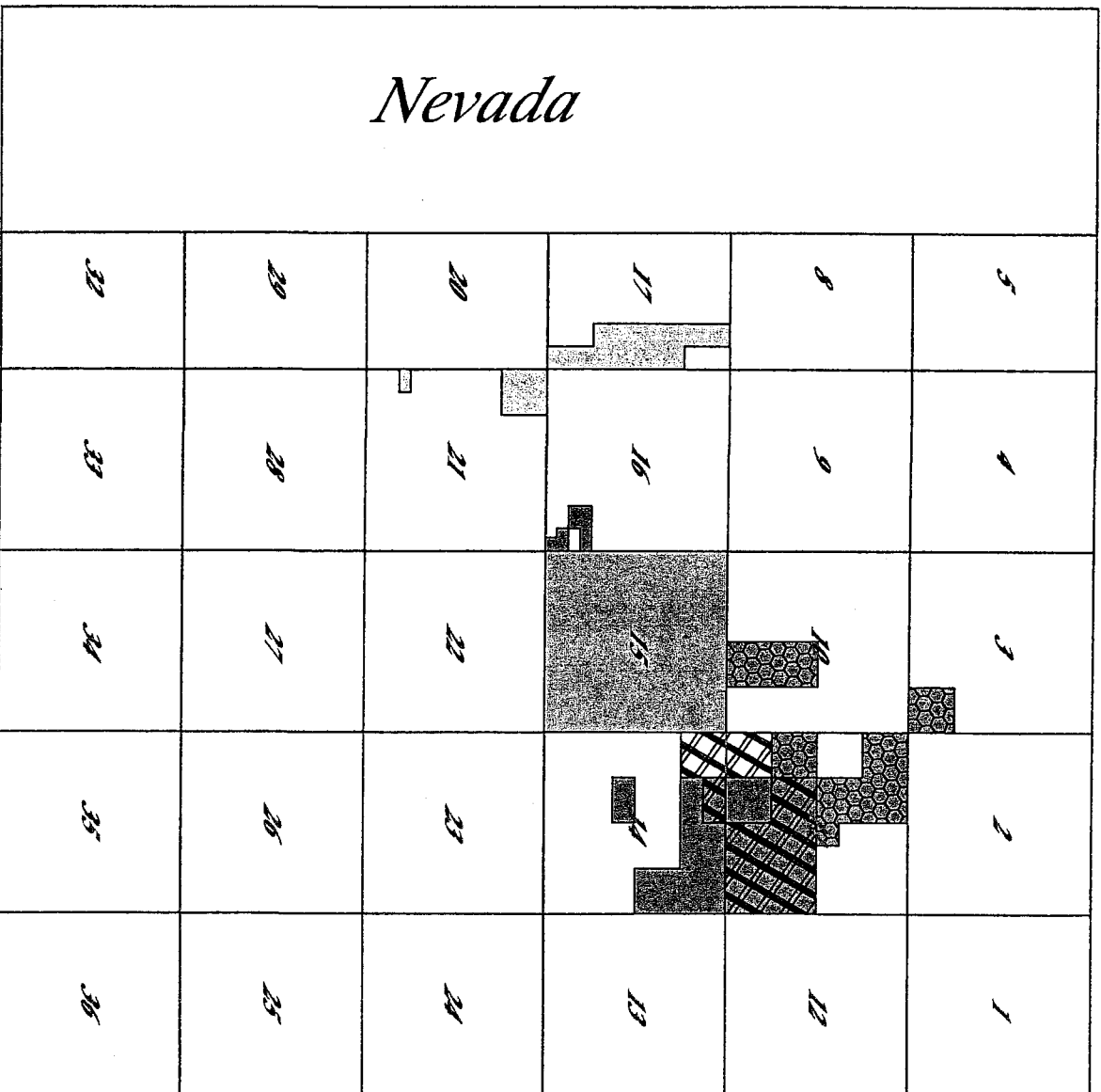
:bsw

Attachments

cc: Mr. Bob Frisby  
Ms. Deb Person (Hand Carried)  
Mr. Jian Liu  
File

# COUNTY: Mohave

## RANGE 16 West

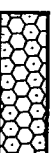


## TOWNSHIP 39 North



W-3551 (1)

Virgin Mountain Utilities Company



WS-4247 (1)

Sunrise Utilities, LLC



Sewer



(1)

Sunrise Well Association, Inc. (Nonjurisdictional)



68449 Order Preliminary Issued

Virgin Mountain Utilities Company

Docket No. W-3551-04-325

Application for Extension



(1)

Beaver Dam Water Company, Inc.

Docket No. W-03067A-06-0397

Second Amended Application for Sewer CC&N

## SHADOW RIDGE SUBDIVISION PROPERTY DESCRIPTION

A Parcel of Land situated in portions of Sections 17 and 21, Gila and Salt River Meridian, Mohave County, Arizona being more particularly described as follows:

All of the West Half of the North Half of the Northeast Quarter of the Northeast Quarter (W1/2 N1/2 NE1/4 NE1/4) and the West Half of the South Half of the Northeast Quarter of the Northeast Quarter (W1/2 S1/2 NE1/4 NE1/4) of Section 17, Township 39 North, Range 16 West, Gila and Salt River Base Meridian, Mohave County, Arizona (Parcel 402-84-012 and 402-84-013, Fee#2003040864, Book 4505, Page 564)

All of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter (SW1/4 SE1/4 NE1/4) and the South Half of the Northwest Quarter of the Southeast Quarter of the Northeast Quarter (S1/2 NW1/4 SE1/4 NE1/4) and the North Half of the North Half of the East Half of the Southeast Quarter of the Northeast Quarter (N1/2 N1/2 E1/2 SE1/4 NE1/4) and the North Half of the North Half of the West Half of the Southeast Quarter of the Northeast Quarter (N1/2 N1/2 W1/2 SE1/4 NE1/4) and the Southeast Quarter of the Southeast Quarter of the Northeast Quarter (SE1/4 SE1/4 NE1/4) and the South Half of the Northeast Quarter of the Southeast Quarter of the Northeast Quarter (S1/2 NE1/4 SE1/4 NE1/4) of Section 17, Township 39 North, Range 16 West, Gila and Salt River Base Meridian, Mohave County, Arizona, (Parcel 402-84-001,002,005 and 006, Fee# 2003026459, Book 4439, Page 485), subject to a 20 foot Access Easement and Utility Easement along the East Boundary Line (Fee# 91-19036, Book 1878, Page 462)

All of the Northeast Quarter of the Southeast Quarter (NE1/4 SE1/4) and the East Half of the Southeast Quarter of the Southeast Quarter (E1/2 SE1/4 SE1/4) of Section 17, Township 39 North, Range 16 West, Gila and Salt River Base Meridian, Mohave County, Arizona (Parcel 402-84-019), subject to a 20 foot Access Easement and Utility Easement along the East Boundary Line (Fee# 90-45221, Book 1749, Page 652) EXCEPT the South 42 feet for a Mohave County Road Right-of-Way (Book 5217, Page 241)

All of the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of Section 21, Township 39 North, Range 16 West, Gila and Salt River Base Meridian, Mohave County, Arizona, (Parcel 402-25-142, Fee# 2002004987, Book 3973 Page 119), EXCEPT the North 42 feet for a Mohave County Road Right-of-Way (Book 3099, Page 663), the West 42 feet and the East 25 feet (Book 2298, Page 247) for a Mohave County Road Right-of-Ways


All of the North Half of the Northwest Quarter of the Southwest Quarter of the Southwest Quarter (N1/2 NW1/4 SW1/4 SW1/4) of Section 21, Township 39 North, Range 16 West, Gila and Salt River Base Meridian, Mohave County, Arizona (Fee# 2003013773, Book 4382 Page 619), EXCEPT the West 42 feet for a Mohave County Road Right-of-Way (Book 1810 Page 847)

Containing 160 Acres more or less.



## MEMORANDUM

TO: Linda Jaress  
Executive Consultant III

FROM: Jian W. Liu   
Utilities Engineer

DATE: August 3, 2007

RE: BEAVER DAM WATER COMPANY, INC.  
DOCKET NO. SW-03067A-06-0397 (CC&N - WASTEWATER)

---

### **Introduction**

Beaver Dam Water Company, Inc. ("Beaver Dam" or "the Company") has been operating a Certificate of Convenience and Necessity ("CC&N") for water since 1988. The Company's existing CC&N for water has an area totaling approximately 8,792 acres (approximately 13.74 square miles). The Beaver Dam water system currently is serving approximately 300 connections. The Company is located in the extreme northwest corner of the state in Mohave County.

On June 14, 2006, Beaver Dam filed a CC&N application to provide sewer service to its existing water CC&N area.

On June 25, 2007, Beaver Dam amended its CC&N application to provide sewer service to approximately 160 acres located within southwest of its existing water CC&N area.

Millennia Investment Corporation ("Developer") is planning to develop a 160-acre parcel ("the proposed sewer CC&N area"). This new development known as Shadow Ridge Subdivision will have approximately 392 lots at build-out. The Developer is willing to build the necessary wastewater infrastructure and convey it to Beaver Dam.

### **Developer's Proposed Wastewater Systems**

The Developer is proposing to construct the necessary wastewater infrastructure in two phases. Phase I will contain 67 lots, and design flow is 24,200 gallon per day ("GPD"). Phase II will contain 325 lots, and design flow is 117,000 GPD.

Staff concludes that the Company's proposed wastewater systems will have adequate infrastructure to serve the proposed sewer CC&N area.

### Cost Analysis

The Company submitted the following estimated plant-in-service amounts for the AdvanTex Treatment Facility:

Cost per gallon to treat wastewater:	\$6.55
Cost per connection (assume 360 gpd):	\$2,358
Total (for 392 lots):	\$924,336

Staff has reviewed the proposed plant-in-service along with the Company's Conceptual Sewer System Study and found the plant facilities and cost to be reasonable and appropriate. However, approval of this CC&N application does not imply any particular future treatment for determining the rate base. No "used and useful" determination of the proposed plant-in-service was made, and no conclusions should be inferred for rate making or rate base purposes in the future.

### **Arizona Corporation Commission ("ACC") Compliance**

According to the Utilities Division Compliance Section (Compliance Section Email dated August 2, 2007), the Company has no outstanding compliance issues for the existing water systems.

### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

#### Compliance Status

ADEQ has determined that the existing Beaver Dam Water Systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

The Company does not have any wastewater plant facilities at this time; therefore, an ADEQ compliance status is not applicable at this time.

#### Approval to Construct

The Company submitted to Staff its ADEQ Certificate of Approval to Construct ("ATC") for construction of the proposed Phase I wastewater facilities.

#### Aquifer Protection Permit and Section 208 Plan Amendment

The Company submitted to Staff its ADEQ 208 Plan approval. Since an Aquifer Protection Permit ("APP") represents fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that the Company

file with Docket Control a copy of its APP within two years of the effective date of the decision in this proceeding.

### **Wastewater Depreciation Rates**

The Staff's typical and customary Wastewater Depreciation Rates are presented in Table A and it is recommended that the Company use these depreciation rates by individual NARUC category as delineated in the attached Table A.

### **Summary**

#### Conclusions

- A. Staff concludes that the Company's proposed wastewater systems will have adequate infrastructure to serve the requested areas.
- B. According to the Utilities Division Compliance Section (Compliance Section Email dated August 2, 2007), the Company has no outstanding compliance issues for the existing water systems.
- C. Staff concludes that the proposed plant facilities and cost are reasonable and appropriate. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.

#### Recommendations

- 1. Staff recommends that the Company file with Docket Control copy its of APP within two years after a decision is issued in this proceeding.
- 2. Staff recommends that the Company use the wastewater depreciation rates by individual NARUC category as delineated in the attached Table A.

Table A. Wastewater Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
354	Structures & Improvements	30	3.33
355	Power Generation Equipment	20	5.00
360	Collection Sewers – Force	50	2.0
361	Collection Sewers- Gravity	50	2.0
362	Special Collecting Structures	50	2.0
363	Services to Customers	50	2.0
364	Flow Measuring Devices	10	10.0
365	Flow Measuring Installations	10	10.00
366	Reuse Services	50	2.00
367	Reuse Meters & Meter Installations	12	8.33
370	Receiving Wells	30	3.33
371	Pumping Equipment	8	12.50
374	Reuse Distribution Reservoirs	40	2.50
375	Reuse Transmission & Distribution System	40	2.50
380	Treatment & Disposal Equipment	20	5.0
381	Plant Sewers	20	5.0
382	Outfall Sewer Lines	30	3.33
389	Other Plant & Miscellaneous Equipment	15	6.67
390	Office Furniture & Equipment	15	6.67
390.1	Computers & Software	5	20.0
391	Transportation Equipment	5	20.0
392	Stores Equipment	25	4.0
393	Tools, Shop & Garage Equipment	20	5.0
394	Laboratory Equipment	10	10.0
395	Power Operated Equipment	20	5.0
396	Communication Equipment	10	10.0
397	Miscellaneous Equipment	10	10.0

## MEMORANDUM

TO: Linda Jaress  
Executive Consultant III Utilities Division

FROM: Darak R. Eaddy *DRE*  
Public Utilities Analyst I – Utilities Division

DATE: September 4, 2007

RE: BEAVER DAM WATER COMPANY, INC. APPLICATION FOR NEW  
CERTIFICATE OF CONVENIENCE AND NECESSITY  
DOCKET NO. SW-03067A-06-0397

### Introduction

On June 14, 2006, Beaver Dam Water Company, Inc. ("Company") submitted an application to the Arizona Corporation Commission ("Commission") for a Certificate of Convenience and Necessity ("CC&N") to provide public utility wastewater services in Mohave County, Arizona. The application indicates that the Company is currently providing water service to the area requested in this CC&N application. The application also indicates that there are presently no customers receiving wastewater service in the area of the requested CC&N. At the end of five years the wastewater Company is projecting to be servicing 400 customers, all of whom will be residential.

### Fair Value Rate Base

Consistent with Commission rules, the Company's filings included the required five-year projections for plant values, operating revenues, operating expenses, and the number of customers. Projections and assumptions are necessary to establish a fair value rate of return and initial rates due to the lack of historical information. In this proceeding, original cost rate base is the fair value rate base.

Staff reviewed the Company's proposed Plant in Service and has made several adjustments. The Company proposes to acquire the entire wastewater infrastructure for this CC&N via a line extension with developers. However Staff recommends that the Company be required to make an equity investment in securing the plant needed to service the CC&N area. Staff typically recommends a capital structure of approximately 70% equity to 30% advances/contributions in new CC&N applications. With the Company having exclusive rights to provide service to the area of the CC&N, Staff's adjustment to the Company's proposed Plant in Service reflects the goal of ensuring a strong economic foundation for the Company and secure wastewater service for customers in the CC&N area. See schedule DRE-WW-6.

Staff reviewed the Company's revenue and expenses projections and found them to be generally reasonable. However, Staff adjusted the depreciation expense to reflect changes made to the capital structure of the Company. Staff also adjusted the proposed income taxes to reflect changes in proposed income tax liability as a result of Staff adjustments to proposed revenues and depreciation expense. See Schedule DRE-WW-1.

Staff reviewed the Company's accumulated depreciation at the end of the fifth year and made adjustments to reflect Staff's adjustment to the Company's proposed capital structure. The Company proposed no depreciation expense reflecting a 100% advance capital structure. Staff's adjustment reflects an approximately 70% equity to 30% advance capital structure for Plant in Service. See Schedule DRE-WW-3.

Staff reviewed Advances in Aid of Construction and made adjustments to reflect only a 30% advance for wastewater infrastructure instead of the Company's proposed 100% advance. Staff made allowances for the payback of advances at a rate of 10 percent of the annual revenue generated on the system. Staff also made an allowance for the payback of the Company's Service Line Connection Charge at a rate of 10 percent per annum of the balance collected. See Schedule DRE-WW-4.

Staff determined the projected rate base for the wastewater Plant in Service to be \$521,281 at the end of five years. See Schedules DRE-WW-1 and DRE-WW-2.

Staff recommends that the Company be required to use the depreciation rates for the wastewater company recommended in the Staff Engineering Report.

## **Revenue and Expenses**

As justification for the initial rates, the Company has estimated its revenue and expenses. The revenue estimates were adjusted by Staff (through adjustment of the recommended rates) in order to obtain a return on investment of 8.10% in year 5. Staff also reviewed the Company's expense estimates and as previously noted adjusted income taxes expense and depreciation expense to reflect Staff's recommended capital structure and Staff's recommended wastewater rates. See Schedule DRE-WW-1.

## **Rate Design**

All of the Company's projected revenues are derived from the residential customer class. Staff has reviewed the estimates and made an adjustment to the Company's proposed residential rate to achieve an approximate 8% return on investment in year 5. The adjustment to the Company's proposed residential rates was necessary to reflect Staff's adjustments to the Company's proposed capital structure and proposed expenses. The wastewater rates requested by the Company are a monthly flat fee. Staff concurs with the Company on its proposed monthly flat fee rate design. However Staff does recommend that with the Company's next rate application, it be required to file a rate design that utilizes some type of volumetric rates in order

to encourage water conservation. Staff also concurs with the Company's proposed commercial monthly flat fee rate.

Staff recommends that the Company proposed reestablishment of service (within 12 months) charge be adjusted to months off the system multiplied by the flat monthly fee to reflect Commission rule A.A.C. R14-2-603(D). Staff also recommends a late payment penalty of 1.50% of unpaid monthly balance per month. The other service charges proposed were found reasonable and should be adopted for the Company's initial rates. See Schedule DRE-WW-5.

The Company has requested a rate in its proposed tariff for the maintenance of the customers on site septic tanks. The treatment system the Company has chosen requires maintenance of sludge levels in the septic tanks for the overall stability of the wastewater treatment as a whole. The Company proposes to annually check each customer's septic tank and when necessary have the tank pumped. Staff is not in opposition to this inclusion in the Company's tariff as long as it is noted that customers have the right to choose whether to use the Company's service or secure an outside service for the pumping of their septic tanks.

The Company has proposed that the service line connection charge be collected from customers as a contribution in aid of construction. This would in effect be a hookup fee for customers to connect to the system. Staff policy is not to recommend hookup fees for initial CC&N applications. Staff recommends that this charge be collected as an advance in aid of construction and be refunded at 10 percent of the collected balance annually.

## **Recommendations**

Staff recommends:

- approval of Staff's rates as shown on Schedule DRE-WW-5. In addition to collection of its regular rates, the Company may collect from its customers a proportionate share of any privilege, sales or use tax.
- the company utilize a capital structure of approximately 70% equity to 30% advances in aid of construction as shown on schedule DRE-WW-6.
- the Company be required to notify the Commission within 15 days of providing service to its first customer.
- the Company be required to file a rate application no later than three months following the fifth anniversary of the date the Company begins providing service to its first customer.
- the Company be required to maintain its books and records in accordance with the NARUC Uniform System of Accounts for Water and Wastewater Utilities.

- the Company be required to use the depreciation rates recommended by Staff for wastewater utilities.
- the Company be required to file in its next rate application, a rate design that includes some type of volumetric charges to encourage water conservation.



WASTEWATER  
Proforma Income Statement and  
Original Cost Rate Base

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Operating Revenue:					
Flat Rate Revenue	\$54,000	\$94,500	\$135,000	\$175,500	\$216,000
Measured Revenue	\$0	\$0	\$0	\$0	\$0
Established Charges	\$2,500	\$4,375	\$6,250	\$8,125	\$10,000
Other Operating Revenue	\$350	\$613	\$875	\$1,138	\$1,400
Total Operating Revenue	\$56,850	\$99,488	\$142,125	\$184,763	\$227,400
Operating Expenses:					
Operation and Maintenance	45,420	62,785	91,360	112,262	134,546
Depreciation	28,742	29,342	31,609	32,209	34,432
Property Taxes	3,000	3,500	4,000	4,500	5,000
Income Taxes	50	810	3,181	7,514	11,214
Total Operating Expense	\$77,212	\$96,438	\$130,151	\$156,485	\$185,192
Operating Income/(Loss)	(\$20,363)	\$3,050	\$11,974	\$28,277	\$42,208
Less:					
Interest Income	0	0	0	0	0
Net Income	(20,363)	3,050	\$11,974	\$28,277	\$42,208
Number of Customers					
Residential	100	175	250	325	400
Commercial	0	0	0	0	0
Total	100	175	250	325	400
Plant in Service	\$768,592	\$798,592	\$888,592	\$918,592	\$1,006,392
Less: Accumulated Depreciation	28,742	58,085	89,694	121,904	156,336
Net Advances in Aid of Construction	258,578	282,893	316,944	325,731	344,595
Plus: 1/24 Power	125	218	312	406	499
Plus: 1/8 Operation and Maintenance	5,303	7,193	10,484	12,816	15,321
ORIGINAL COST RATE BASE	\$486,700	\$465,026	\$492,750	\$484,179	\$521,281
Rate of Return	-4.18%	0.66%	2.43%	5.84%	8.10%

PLANT IN SERVICE - WASTEWATER

Acc't No.	Description	Cost Year One	Additions Year Two	Additions Year Three	Additions Year Four	Additions Year Five	Plant Total Year Five
351	Organization	-	-	-	-	-	-
352	Franchises	-	-	-	-	-	-
353	Land and Land Rights	56,400.00	-	-	-	-	56,400.00
354	Structures and Improvements	54,169.00	-	-	-	-	54,169.00
355	Power Generation Equipment	8,500.00	-	-	-	-	8,500.00
360	Collecting Sewers-Force	-	-	-	-	-	-
361	Collecting Sewers-Gravity	211,000.00	30,000.00	80,000.00	30,000.00	77,800.00	428,800.00
362	Special Collecting Structures	-	-	-	-	-	-
363	Services to Customers	-	-	-	-	-	-
364	Flow Measuring Devices	-	-	-	-	-	-
365	Flow Measuring Installations	-	-	-	-	-	-
370	Receiving Wells	8,000.00	-	-	-	-	8,000.00
371	Pumping Equipment	-	-	-	-	-	-
374	Reuse Distribution Reservoirs	-	-	-	-	-	-
375	Reuse Transmission and Distribution	-	-	-	-	-	-
380	Treatment and Disposal Equip.	400,523.00	-	-	-	-	400,523.00
381	Plant Sewers	-	-	-	-	-	-
382	Outfall Sewer Lines	-	-	-	-	-	-
389	Other Plant and Misc. Equip.	30,000.00	-	10,000.00	-	10,000.00	50,000.00
390	Office Furniture and Equip.	-	-	-	-	-	-
390.1	Computers & Software	-	-	-	-	-	-
391	Transportation Equipment	-	-	-	-	-	-
392	Stores Equipment	-	-	-	-	-	-
393	Tools, Shop and Garage Equip.	-	-	-	-	-	-
394	Laboratory Equipment	-	-	-	-	-	-
395	Power Operated Equipment	-	-	-	-	-	-
396	Communication Equipment	-	-	-	-	-	-
397	Miscellaneous Equipment	-	-	-	-	-	-
	Totals	\$768,592	\$30,000	\$90,000	\$30,000	\$87,800	\$1,006,392

**PLANT IN SERVICE WASTEWATER**  
Annual Accumulated Depreciation

Acc't No.	Description	Staff's PIS Year 5	Staff's Depr. Rat	1st year Acc. Depr.	2nd year Acc. Depr.	3rd year Acc. Depr.	4th year Acc. Depr.	5th year Acc. Depr.
351	Organization	\$0	0.00%	-	-	-	-	-
352	Franchises	\$0	0.00%	-	-	-	-	-
353	Land and Land Rights	\$56,400	0.00%	-	-	-	-	-
354	Structures and Improvements	\$54,169	3.33%	1,804	3,608	5,411.48	7,215.31	9,019
355	Power Generation Equipment	\$8,500	5.00%	425	850	1,275.00	1,700.00	2,125
360	Collecting Sewers-Force	\$0	2.00%	-	-	-	-	-
361	Collecting Sewers-Gravity	\$428,800	2.00%	4,220	9,040	15,460.00	22,480.00	31,056
362	Special Collecting Structures	\$0	2.00%	-	-	-	-	-
363	Services to Customers	\$0	2.00%	-	-	-	-	-
364	Flow Measuring Devices	\$0	10.00%	-	-	-	-	-
365	Flow Measuring Installations	\$0	10.00%	-	-	-	-	-
370	Receiving Wells	\$8,000	3.33%	266	533	799.20	1,065.60	1,332
371	Pumping Equipment	\$0	12.50%	-	-	-	-	-
374	Reuse Distribution Reservoirs	\$0	2.50%	-	-	-	-	-
375	Reuse Transmission and Distribution	\$0	2.50%	-	-	-	-	-
380	Treatment and Disposal Equip.	\$400,523	5.00%	20,026	40,052	60,078.45	80,104.60	100,131
381	Plant Sewers	\$0	5.00%	-	-	-	-	-
382	Outfall Sewer Lines	\$0	3.33%	-	-	-	-	-
389	Other Plant and Misc. Equip.	\$50,000	6.67%	2,001	4,002	6,670.00	9,338.00	12,673
390	Office Furniture and Equip.	\$0	6.67%	-	-	-	-	-
390.1	Computer Equipment	\$0	20.00%	-	-	-	-	-
391	Transportation Equipment	\$0	20.00%	-	-	-	-	-
392	Stores Equipment	\$0	4.00%	-	-	-	-	-
393	Tools, Shop and Garage Equip.	\$0	5.00%	-	-	-	-	-
394	Laboratory Equipment	\$0	10.00%	-	-	-	-	-
395	Power Operated Equipment	\$0	5.00%	-	-	-	-	-
396	Communication Equipment	\$0	10.00%	-	-	-	-	-
397	Miscellaneous Equipment	\$0	10.00%	-	-	-	-	-
	Totals	\$1,006,392		\$28,742	\$58,081	\$89,693	\$121,903	\$156,336

Beaver Dam Water Company, Inc.  
Docket Number SW-03067A-06-0397

Schedule DRE-WW-4

**Advances in Aid of Construction**

Year		Gross Advances	Cumm. Advances	Refund 10.00%	Net Plant Advances Refunded	Net Advances Balance
1	\$	258,578	\$ 258,578	10.00%	5,685	252,893
2	\$	30,000	\$ 282,893	10.00%	13,949	268,944
3	\$	48,000	\$ 316,944	10.00%	21,213	295,731
4	\$	30,000	\$ 325,731	10.00%	28,476	297,255
5	\$	47,340	\$ 344,595	10.00%	35,740	308,855

**RATE DESIGN-WASTEWATER**

	Company Proposed Rates	Staff Recommended Rates
<b><u>Minimum Monthly Flat Charge</u></b>		
Residential	\$40.00	\$45.00
Commercial	60.00	60.00
<b><u>Effluent Sales</u></b>		
Treated Effluent per 1,000 gallons	\$ 0.25	0.25
Service Line Connection Charges	\$ 400.00	400.00
<b><u>Service Charges</u></b>		
Establishment of Service	25.00	25.00
Reconnection/Delinquent	50.00	50.00
Deposit	0.00	0.00
Deposit Interest	0%	0%
Re-establishment of Service (Within 12 months)	25.00	*
NSF Check	15.00	15.00
Late Payment Penalty (per month on unpaid balance)	10.00	1.50%

\* Per Commission Rules A.A.C. R14-2-603(D).

### Equity- Wastewater

	Year 1	Year 2	Year 3	Year 4	Year 5
Common Stock	\$510,014	\$510,014	\$552,014	\$552,014	\$592,474
Paid-In Capital		5,685	19,634	40,846	69,323
Retained Earnings	(20,363)	(17,314)	(5,339)	22,938	65,146
Total Equity	\$489,651	\$498,386	\$566,309	\$615,799	\$726,943
Liabilities and Deferred Credits					
Advances in Aid of Construction	\$ 258,578	\$ 282,893	\$ 316,944	\$ 325,731	\$ 344,595
Long-Term Debt					
Total Liabilities and Deferred Credits					
Total Equity and Liabiltiy	\$748,229	\$781,278	\$883,253	\$941,530	\$1,071,538
Equity Percentage	65.44%	63.79%	64.12%	65.40%	67.84%
Advances Percentage	34.56%	36.21%	35.88%	34.60%	32.16%
Total percentage	100.00%	100.00%	100.00%	100.00%	100.00%